

CURRICULUM VITAE
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Address:

Department of Physics and Astronomy
Iowa State University
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Education:

University of Athens, Athens, Greece.
B.S. Physics. 1969 -1974
University of Chicago, Chicago, Illinois.
MS Physics. 1975
Ph.D. Physics. 1978

Professional Experience:

Senior Physicist and Professor of Physics, Ames Laboratory and Department of Physics, Iowa State University, July 1990-present

Physicist and Associate Professor of Physics, Ames Laboratory and Department of Physics, Iowa State University, July 1986-June 1990

Visiting Professor of Physics, Research Center of Crete and Department of Physics, University of Crete, Heraklio, Crete, Greece, September 1986-June 1987

Associate Physicist and Assistant Professor of Physics, Ames Laboratory and Department of Physics, Iowa State University, August 1984-June 1986

Research Physicist, Corporate Research Science Labs, Exxon Research and Engineering Company, June 1981-July 1984

Visiting Assistant Professor, Department of Physics, University of Virginia, September 1978-May 1981

Research Associate, Department of Physics and the James Franck Institute, University of Chicago, May 1978-August 1978

Research and Teaching Assistant, Department of Physics and the James Franck Institute, University of Chicago, September 1974-May 1978

Professional Honors/Awards:

Fellow of the American Physical Society, 1991.
Alexander Von Humboldt Fellowship, 1991.
Outstanding Scientific Accomplishment in Solid State Physics (DOE Materials Sciences Division), 1992.
LAS Excellence in Research Award, ISU 2000.
ISU Outstanding Achievement in Research, 2001.
Energy 100 Award and Science 100 Award, U. S. Dept. of Energy.

Research Interests:

Development of theoretical understanding of the properties of disordered systems, with emphasis on electron and photon localization, photonic band gaps, left handed materials, random lasers, spin glasses, random fields, superconductivity, and the effects of disorder on nonlinear systems. The understanding of the electronic and transport properties of amorphous semiconductors is also a major effort.

Teaching Experience:

Have taught one major graduate or undergraduate course per semester since 1984 at Iowa State University and University of Virginia. These include modern physics, condensed matter physics, statistical physics and general physics.

Citations:

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|------|------------|------|------------|------|------------|------|------------|------|------------|
| 1978 | 10 | 1979 | 28 | 1980 | 38 | 1981 | 59 | 1982 | 52 |
| 1983 | 77 | 1984 | 109 | 1985 | 154 | 1986 | 145 | 1987 | 118 |
| 1988 | 167 | 1989 | 183 | 1990 | 170 | 1991 | 173 | 1992 | 165 |
| 1993 | 190 | 1994 | 245 | 1995 | 229 | 1996 | 313 | 1997 | 297 |
| 1998 | 386 | 1999 | 426 | 2000 | 442 | | | | |

Up to December 30, 2001 the **total number of citations** was **4980**. This information was obtained from the Web of Science.

Invited Review Articles, Popular Articles and Other Papers:

1. C. M. Soukoulis and E. N. Economou, "Electron States, Localized," in *Encyclopedia of Applied Physics*; Vol. 5, ed. by G. Trigg, VCH Publishers, New York (1993), p. 549-570.
2. "A Novel Architecture of Excluding Photons," *Science News* **144**, 199 (1993).
3. "Using Micro fabrication Techniques on Photonic Bandgap Structures," *Optics & Photonics News*, March 1994, p. 52.
4. "Light Gets the Bends in a Photonic Crystal," *Science News* **150**, 309 (1996)
5. C. M. Soukoulis, "Photonic Crystals," in *McGraw-Hill Yearbook of Science and Technology*, 1997, p.363.
6. "Infrared Photonic Crystals Fabricated using Deep x-ray Lithography," *Optical Engineering Reports*, January 1998, p.7.
7. K. Busch and C.M. Soukoulis, "Effective medium and Coherent Potential Approximation," *Springer tracts in modern physics* **144**, chapter 3 (1998)
8. M. M. Sigalas, K. M. Ho. C. M. Soukoulis, R. Biswas and G. Tuttle, "Photonic Crystals," in *Wiley Encyclopedia of Electrical and Electronics Engineering*; Vol. 16, ed. By J. G. Webster, J. Wiley, New York (1999) p. 345-359.

9. "Visible Progress Made in three-dimensional Photonic Crystals," *Physics Today*, January 1999, p. 17.
10. M. Sigalas, K. M. Ho, R. Biswas and C. M. Soukoulis, "Photonic Crystals," in *Optics of Nanosstructured Materials*; J. Wiley, New York (2001) p.1.
11. C. M. Soukoulis and E. N. Economou, "Solid State Physics," in AIP Physics Desk Reference (to be published).

Patents

K.M. Ho, C.T. Chan, and C.M. Soukoulis, *Periodic Dielectric Structures for Production of Photonic Band Gaps and Devices Incorporating the Same*, U.S. Patent 5,335,240.

K.M. Ho, G.L. Tuttle, E. Michel, R. Biswas, C.T. Chan, C.M. Soukoulis and E. Ozbay, *Periodic Dielectric Structure for Production of Photonic Band Gaps and Method for Fabricating the Same*, U.S. Patent 5,406,573.

Grants Received (Non-Ames Lab)

Research Corporation, Amount \$10,500; Funding date: October 31, 1984

North Atlantic Treaty Organization (NATO), travel grants since 1985 (with E. N. Economou)

Electric Power Research Institute (EPRI), Amount: \$146,520 for three years
Funding date: February 20, 1989 (with Rana Biswas)

NSF Supercomputer Grant of 200 hours per year of CRAY-XMP time since 1987 (with Rana Biswas)

NSF (US-Greece Cooperative Science Program), Amount: \$16,000. Funding dates: May 1, 1992 - October 31, 1994.

NATO, award for organizing a NATO Advanced Research Workshop. Amount: \$35,000 (May 1992).

Department of Energy (Advanced Energy Projects) Amount \$909,605. Funding dates: Jan 1, 92 - Dec 31, 94 (with K. M. Ho, C. T. Chan, G. Tuttle)

Department of Education (FIPSE-Higher Education Collaboration), Amount: \$80,000 (with Rutgers, Courant Inst., Texas-Austin); Funding dates: Nov. 1, 1993 - Oct. 31, 1995.

Iowa Energy Center, Amount \$95,668. Funding dates: July 1, 1993 - June 30, 1995 (with Rana Biswas)

NATO, award for organizing a NATO ASI. Amount \$75,000 (June 1995)

Department of Energy, Photonic Band Gap Materials, Amount: \$450,000/yr. Funding dates: March 1, 1995-February 28, 1998 (with K.M. Ho, C. T. Chan, G. Tuttle)

Army Research Office, Amount: \$66,031, (subcontract with UC Santa Barbara). Funding dates: 9/1/97-4/31/00.

NATO, award for organizing a NATO ASI, Amount: \$75,000, Funding date: June 2000

NSF (US-Greece Cooperative Science Program), Amount: \$23,000. Funding dates: February 1, 2001 - January 31, 2003.

DARPA, Amount: \$200,000 (subcontract with Boeing). Funding Dates: April 1, 2001-March 31, 2003.

Presently, I have three DOE grants within the Ames Laboratory. One is for our work, both theory and experiment, on Photonic Crystals (\$500,000/yr), the second is on my work on Left-Handed Materials (\$150,000/yr), and the third one is on my work on Wave Propagation in Random Media (\$100,000/yr). In addition, in collaboration with Dr. E. N. Economou, I have two other grants at the Research Center of Crete, Heraklion, Crete on Photonic Crystals (200,000 Euro for 3 years) and on Left-Handed Materials (800,000 Euro for 3 years).

Invited Talks:

1. K. Levin, C. M. Soukoulis and G. S. Grest, 24th Conference on Magnetism and Magnetic Materials, Cleveland, Ohio, U.S.A. (1978).
2. G. S. Grest, C. M. Soukoulis and K. Levin, 5th EPS School on Materials, Magnetic Phase Transitions, Erice, Italy, July 1983.
3. C. M. Soukoulis, K. Levin and G. S. Grest, Workshop of the Physics of Disordered Systems, Institute for Theoretical Physics, University of California, Santa Barbara, California, U.S.A., August 1983.
4. M. H. Cohen, E. N. Economou and C. M. Soukoulis, 10th International Conference on Amorphous and Liquid Semiconductors, Tokyo, Japan, August 1983.
5. G. S. Grest, C. M. Soukoulis and K. Levin, 29th Conference on Magnetism and Magnetic Materials, Pittsburgh, Pennsylvania, U.S.A., November 1983.
6. C. M. Soukoulis, International Seminar on Localization in Disordered Systems, Johnsbach/Glashutte near Dresden, East Germany, December 1983 (invitation not accepted).
7. C. M. Soukoulis, 12th Midwest Solid Theory Symposium, University of Minnesota, Minneapolis, Minnesota, U.S.A., September 1984.
8. C. M. Soukoulis, 32nd Annual Midwest Solid State Conference, University of Nebraska, Lincoln, Nebraska, U.S.A., November 1984.
9. C. M. Soukoulis, March Meeting of the American Physical Society, Baltimore, Maryland, U.S.A., March 1985.
10. C. M. Soukoulis, NATO Advanced Study Institute on Hydrogen in Disordered and Amorphous Solids, Rhodes, Greece, September 1985.
11. C. M. Soukoulis, Greek-Soviet Workshop on Solid State Physics, Crete, Greece, December 1985.
12. C. M. Soukoulis, 1st International Workshop on Non-Crystalline Solids, Sant Feliu de Guixols (Costa Brava), Spain, May 1986.
13. C. M. Soukoulis, Conference on Glassy Dynamics and Optimization, Heidelberg, West Germany, June 1986.
14. C. M. Soukoulis, Conference on Disorder and Nonlinearity, Los Alamos National Laboratory, New Mexico, May 1988.
15. C. M. Soukoulis, SIAM Workshop on Random Media and Composites, Xerox Training Center, Leesburg, Virginia, December 1988.
16. C. M. Soukoulis, 2nd International Workshop on Non-Crystalline Solids, San Sebastian, Basque Country, Spain, July 1989.

17. C. M. Soukoulis, EEC Workshop on Electronic Properties of Amorphous Semiconductors, Grenoble, France, July 1989.
18. C. M. Soukoulis, NATO Advanced Study Institute on the Science and Technology of Nanostructured Magnetic Materials, Crete, Greece, June 1990.
19. C. M. Soukoulis, 6th General Conference of the Greek Solid State Physics Division, Crete, Greece, September 1990.
20. C. M. Soukoulis, 19th Midwest Solid State Theory Symposium, Michigan State University, East Lansing, Michigan, U.S.A., October 1991.
21. C. M. Soukoulis, Workshop on the Development and Application of Photonic Band Gap Structures, Park City, Utah, U.S.A., January 1992.
22. C. M. Soukoulis, NATO ARW on the Localization and Propagation of Classical Waves in Random and Periodic Structures, Crete, Greece, May 1992. (Director)
23. C. M. Soukoulis, March Meeting of the American Physical Society, Seattle, Washington, USA, March 1993.
24. C. M. Soukoulis, NATO Advanced Study Institute on Nanophase Materials: Synthesis-Processes-Applications, Corfu, Greece, June 1993.
25. C. M. Soukoulis, 21st Midwest Solid State Theory Symposium, Wayne State University, Detroit, Michigan, USA, October 1993.
26. C. M. Soukoulis, Advances in Optical Imaging and Photon Migration, Optical Society of America, Orlando, Florida, USA, March 1994.
27. C. M. Soukoulis, Waves in Random and Other Complex Media, Institute for Mathematics and its Applications, Minneapolis, Minnesota, November 1994.
28. C. M. Soukoulis, NATO ASI on Photonic Band Gap Materials, Elounda, Crete, Greece, June 1995. (Director)
29. C. M. Soukoulis, Materials Modeling, Naval Research Laboratory, Washington, D. C., October 1995.
30. C. M. Soukoulis, 15th General Conference of the Condensed Matter Division, European Physical Society, Baveno-Stressa, Lago Maggiore, Italy, April 1996.
31. C. M. Soukoulis, Progress in Electromagnetic Research Symposium, Innsbruck, Austria, July 1996.
32. C. M. Soukoulis, Fluctuations, Nonlinearity and Disorder, Heraklion, Crete, Greece, September 1996.
33. C. M. Soukoulis, Progress in Electromagnetic Research Symposium, Hong Kong, January 1997.

34. C. M. Soukoulis, NATO ASI on Diffuse Waves in Complex Media, Les Houches, France, March 1998.
35. C. M. Soukoulis, TMR Network Meeting on Phase-Coherent Dynamics of Hybrid Nanostructures, Ioannina, Greece, May 1998.
36. C. M. Soukoulis, XXII International Workshop on Condensed Matter Theories, Vanderbilt University, Nashville, TN, June 1998.
37. C. M. Soukoulis, Progress in Electromagnetic Research Symposium, Nantes, France, July 1998.
38. C. M. Soukoulis, 20th International Conference on Statistical Physics, Paris, France, July 1998.
39. C. M. Soukoulis, 14th General Conference of the Greek Solid State Physics Division, Ioannina, Greece, September 1998.
40. C. M. Soukoulis, 210th , WE-Heraeus Seminar on Percolation, Interaction and Localization, Berlin, Germany, October 1998.
41. C. M. Soukoulis, Conference on Electromagnetic Crystal Structures: Design, Synthesis and Applications, Laguna Beach, CA, January 1999.
42. C. M. Soukoulis, International Conference on Mechanical and Electromagnetic Waves in Structured Media, University of Sydney, Sydney, Australia, January 1999.
43. C. M. Soukoulis, Cost268 Meeting on Wavelength Scale Photonic Components for Telecommunications, Kista-Stockholm, Sweden, March 1999.
44. C. M. Soukoulis, Hellenic Condensed Matter Society Meeting, Athens, Greece, May 1999.
45. C. M. Soukoulis, 4th International Topical Conference on Optical Probes of Conjugated Polymers and Photonic Crystals, Salt lake City, Utah, February, 2000.
46. C. M. Soukoulis, International Workshop on Photonic and Electromagnetic Crystal Structures, Sendai, Japan, March 2000.
47. C. M. Soukoulis, Tsukuba Mini-Workshop on Photonic Crystals, Tsukuba, Japan, March 2000.
48. X. Jiang and C. M. Soukoulis, March Meeting of the American Physical Society, Minneapolis, Minnesota, March 2000.
49. C. M. Soukoulis, Wave Propagation and Electronic Structure in Disordered Systems, a 60th Birthday Symposium in Honor of E. N. Economou, Heraklion, Crete, Greece, June 2000.
50. C. M. Soukoulis, NATO ASI on Photonic Crystals and Light Localization, Limin Hersonissou, Crete, Greece, June 2000. (**Director**)
51. C. M. Soukoulis, Wave Propagation in Diffusive and Nonlinear Media, Cargese, Corsica, France, September 2000.

52. C. M. Soukoulis, 16th General Conference of the Greek Solid State Physics Division, Nafplion, Greece, September 2000.
53. C. M. Soukoulis, Fall Meeting of the Materials Research Society, Boston, Massachusetts, November 2000.
54. C. M. Soukoulis, Workshop on Photonic and Electromagnetic Crystal Structures, St. Andrews, Scotland, June 2001.
55. C. M. Soukoulis, Trends in Nanotechnology (TNT 2001), Segovia, Spain, September 2001.
56. C. M. Soukoulis, First Hellenic-Turkish International Conference Physics Conference, Bodrum, Turkey and Kos, Greece, September 2001.
57. C. M. Soukoulis, Photonic Nanostructures, Advancing Materials to Control Light, San Diego, CA, October 2001.
58. C. M. Soukoulis, 2001 Annual Meeting of Optical Society Meeting/ILS-XVVI, Long Beach, CA, October, 2001.
59. C. M. Soukoulis, 7th International Symposium on Advanced Physical Fields, "Fabrication and Characterization of Nanostructured Materials", Tsukuba, Japan, November 2001.
60. C. M. Soukoulis, Inauguration Meeting of the DFG - Center for Functional Nanostructures, Karlsruhe, Germany, December 2001.
61. C. M. Soukoulis, March Meeting of the American Physical Society, Indianapolis, Indiana, March 2002.

Publications:

1. C. M. Soukoulis and K. Levin, "Cluster Mean Field Theory of Spin Glasses," *Phys. Rev. Lett.* **39**, 581 (1977).
2. C. M. Soukoulis and K. Levin, "A Cluster Mean Field Model of the Spin Glasses: Static Properties," *Phys. Rev. B* **18**, 1439 (1978).
3. C. M. Soukoulis, G. S. Grest, and K. Levin, "Theory of the Neutron Scattering Cross Section in Spin Glasses," *Phys. Rev. Lett.* **41**, 568 (1978).
4. C. M. Soukoulis, "Thermodynamic Properties of Concentrated Spin Glasses: A Cluster Mean Field Theory," *Phys. Rev. B* **18**, 3757 (1978).
5. K. Levin, C. M. Soukoulis, and G. S. Grest, "A Cluster Model of Spin Glasses: Towards Reconciling Theory and Experiment," (Invited talk Joint MMM/INTERMAG Conference (1978)), *J. Appl. Phys.* **50**, 1695 (1979).
6. J. Ruvalds and C. M. Soukoulis, "Disorder and Superconductivity in A-15 Compounds," *Phys. Rev. Lett.* **43**, 1263 (1979).
7. C. M. Soukoulis and G. S. Grest, "Superconductivity and Magnetic Order in Ferromagnets and Spin Glasses," *Phys. Rev. B* **21**, 5119 (1980).
8. C. M. Soukoulis and J. Ruvalds, "Resistivity and T_C in Disordered Superconductors," *J. Low Temp. Phys.* **40**, 89 (1980).
9. E. N. Economou and C. M. Soukoulis, "Static Conductance and Scaling Theory of Localization in One Dimension," *Phys. Rev. Lett.* **46**, 618 (1981).
10. K. Levin, C. M. Soukoulis, and G. S. Grest, Reply to "Re-Examination of the Small Angle Neutron Scattering Data on Concentrated AuFe Spin Glasses," *Phys. Rev. B* **22**, 3500 (1980).
11. C. M. Soukoulis and E. N. Economou, "Numerical Calculations of the DC Conductance by the Kubo-Greenwood Formula in One-Dimensional Disordered Systems," *Solid State Comm.* **37**, 409 (1981).
12. C. M. Soukoulis and E. N. Economou, "Localization in Disordered Two-Dimensional Systems," *Phys. Rev. Lett.* **45**, 1590 (1980).
13. C. M. Soukoulis and E. N. Economou, "Localization in Disordered Three-Dimensional Systems," *J. Phys. C* **14**, L221 (1981).
14. C. M. Soukoulis and E. N. Economou, "Off-Diagonal Disorder in One-Dimensional Systems," *Phys. Rev. B* **24**, 5698 (1981).

15. E. N. Economou and C. M. Soukoulis, Respond to "Why Landauer's Formula for Resistance is Right," *Phys. Rev. Lett.* **47**, 973 (1981).
16. C. M. Soukoulis and D. A. Papaconstantopoulos, "The Superconducting Transition Temperature of Disordered A-15 Compounds," *Physica B & C*, **107**, 265 (1981).
17. C. M. Soukoulis and E. N. Economou, "Localization in Low Dimensions," *Physica B & C*, **107**, 673 (1981).
18. C. M. Soukoulis and E. N. Economou, "Localization in One Dimensional Lattices in the Presence of Incommensurate Potentials," *Phys. Rev. Lett.* **48**, 1043 (1982).
19. C. M. Soukoulis, K. Levin, and G. S. Grest, "Reversibility and Irreversibility in Spin Glasses: The Free Energy Surface," *Phys. Rev. Lett.* **48**, 1756 (1982).
20. C. M. Soukoulis, I. Webman, G. S. Grest, and E. N. Economou, "Study of Electronic States with Off-Diagonal Disorder in Two-Dimensions," *Phys. Rev. B* **26**, 1838 (1982).
21. C. M. Soukoulis, J. Klafter, and E. N. Economou, "Role of the Incipient Anderson Transition in Electronic Energy Transfer in Mixed Organic Crystals," *Solid State Comm.* **44**, 833 (1982).
22. C. M. Soukoulis and D. A. Papaconstantopoulos, "Effects of Disorder on Properties of A15 Materials," *Phys. Rev. B* **26**, 3673 (1982).
23. C. M. Soukoulis, G. S. Grest, and K. Levin, "A Study of the Free Energy Surface of an Ising Spin Glass," *J. Appl. Phys.* **53**, 7679 (1982).
24. C. M. Soukoulis, G. S. Grest, and K. Levin, "Absence of Irreversibility in Isotropic Heisenberg Spin Glasses: Anisotropy Effects," *Phys. Rev. Lett.* **50**, 80 (1983).
25. C. M. Soukoulis, J. Jose, E. N. Economou, and P. Sheng, "Localization of One Dimensional Disordered Systems in the Presence of an Electric Field," *Phys. Rev. Lett.* **50**, 764 (1983).
26. E. N. Economou and C. M. Soukoulis, "Equivalence of Localization with the Problem of the Bound State in a Potential Well," *Phys. Rev. B* **28**, 1093 (1983).
27. C. M. Soukoulis, K. Levin, and G. S. Grest, "Irreversibility and Metastability in Spin Glasses. I. Ising Model," *Phys. Rev. B* **28**, 1495 (1983).
28. C. M. Soukoulis, G. S. Grest, and K. Levin, "Irreversibility and Metastability in Spin Glasses. II. Heisenberg Model," *Phys. Rev. B* **28**, 1510 (1983).
29. M. H. Cohen, E. N. Economou, and C. M. Soukoulis, "Polaron Formation near a Mobility Edge," *Phys. Rev. Lett.* **51**, 1202 (1983).
30. G. S. Grest and C. M. Soukoulis, "Ground State Properties of Infinite-Range Vector Spin Glasses," *Phys. Rev. B* **28**, 2886 (1983).
31. G. S. Grest, C. M. Soukoulis, and K. Levin, "Spin Glasses: Irreversibility, Metastability and the Free Energy Surface," in *Magnetic Phase Transitions*, ed. by M. Ausloos and R. J. Elliott (Springer Verlag, New York 1983), p. 223.

32. M. H. Cohen, E. N. Economou, and C. M. Soukoulis, "Electron-Phonon Interactions near the Mobility Edge in Disordered Semiconductors," *J. Non-Crystal. Mater.* **59 & 60**, 15 (1983).
33. C. M. Soukoulis, G. S. Grest, and K. Levin, "Irreversible and Reversible Behavior of Spin Glasses: Broken Ergodicity," in *Phase Transformations in Solids*, Ed T. Tsakalatos (Elsevier Science Pub. Co., New York, 1984), p. 57.
34. C. M. Soukoulis, "Metal-Insulator Transition in Modulated Crystals," in *Modulated Structure Materials*, ed. by T. Tsakalatos (Martinus Nijhoff pub., New York, 1984), p. 81.
35. M. H. Cohen, E. N. Economou, and C. M. Soukoulis, "Small Bipolaron Formation," *Phys. Rev. B* **29**, 4496 (1984).
36. M. H. Cohen, E. N. Economou, and C. M. Soukoulis, "Bipolarons in Disordered Media," *Phys. Rev. B* **29**, 4500 (1984).
37. G. S. Grest, C. M. Soukoulis, and K. Levin, "Irreversibility in Ising and Heisenberg Spin Glasses," *J. Appl. Phys.* **55**, 1634 (1984).
38. C. M. Soukoulis and G. S. Grest, "Irreversibility of Infinite Range Vector Spin Glasses," *J. Appl. Phys.* **55**, 1661 (1984).
39. A. N. Berker, G. S. Grest, C. M. Soukoulis, D. Blankschtein, and M. Ma, "Orderings and Renormalization-Group Flows of a Stacked Frustrated Triangular System in Three Dimensions," *J. Appl. Phys.* **55**, 2416 (1984).
40. C. M. Soukoulis and E. N. Economou, "Fractal Character of Eigenstates in Disordered Systems," *Phys. Rev. Lett.* **52**, 565 (1984).
41. M. H. Cohen, E. N. Economou, and C. M. Soukoulis, "The Microscopic Mobility," *Phys. Rev. B* **30**, 4493 (1984).
42. D. Blankschtein, M. Ma, A. N. Berker, G. S. Grest, and C. M. Soukoulis, "Orderings of a Stacked Frustrated Triangular System in Three Dimensions," *Phys. Rev. B* **29**, 5250 (1984).
43. C. M. Soukoulis, "Monte Carlo Simulations of Zeolites," *J. Phys. Chem.* **88**, 4898 (1984).
44. E. N. Economou, C. M. Soukoulis, and A. D. Zdetsis, "Localized States in Disordered Systems as Bound States in Potential Wells," *Phys. Rev. B* **30**, 1686 (1984).
45. C. M. Soukoulis and M. H. Cohen, "Exponential Band Tails," *J. Non. Cryst. Solids* **66**, 279 (1984).
46. M. H. Cohen, E. N. Economou, and C. M. Soukoulis, "Electron Transport and Amorphous Semiconductors," *J. Non. Cryst. Solids* **66**, 285 (1984).
47. C. M. Soukoulis, M. H. Cohen, and E. N. Economou, "Exponential Band Tails in Random Systems," *Phys. Rev. Lett.* **53**, 616 (1984).

48. M. H. Cohen, C. M. Soukoulis, and E. N. Economou, "Interband Optical Absorption in Amorphous Semiconductors," in *Optical Effects in Amorphous Semiconductors*, ed. by P. C. Taylor (American Institute of Physics Conference Proceedings, No. 120, New York, 1984), p. 371.
49. C. Ro, G. S. Grest, C. M. Soukoulis, and K. Levin, "Irreversibility in Random Field Ferro- and Diluted Antiferro-magnets," *Phys. Rev. B* **31**, 1682 (1985).
50. C. M. Soukoulis and E. N. Economou, "Nature of Electronic Wave Functions in Disordered Systems," *Mater. Science Forum* **4**, 145 (1985).
51. C. M. Soukoulis, G. S. Grest, C. Ro and K. Levin, "Irreversibility in Diluted Anti-ferromagnets," *J. Appl. Phys.* **57**, 3300 (1985).
52. E. N. Economou, C. M. Soukoulis, M. H. Cohen and A. D. Zdetsis, "Quantitative Results near the Band Edges of Disordered Systems," *Phys. Rev. B* **31**, 6172 (1985).
53. E. N. Economou, C. M. Soukoulis and A. D. Zdetsis, "Conductivity in Disordered Systems," *Phys. Rev. B* **31**, 6483 (1985).
54. M. H. Cohen, E. N. Economou and C. M. Soukoulis, "A Field Theoretic Formalism for Electron-Phonon Interactions in Disordered Materials," *Suppl. Progr. of Theor. Phys.* **80**, 76 (1985).
55. M. H. Cohen, E. N. Economou and C. M. Soukoulis, "Band Edge Features in Disordered Systems," *Phys. Rev. B* **32**, 8268 (1985).
56. M. H. Cohen, C. M. Soukoulis and E. N. Economou, "Recent Progress in the Theory of Amorphous Semiconductors," in *Physics of Disordered Materials*, ed. by D. Adler, H. Fritzsche and S. R. Ovshinsky (Plenum Publ., 1985) p. 305.
57. A. D. Zdetsis, C. M. Soukoulis, E. N. Economou and G. S. Grest, "Localization in Two- and Three-Dimensional Systems Away from the Band Center," *Phys. Rev. B* **32**, 7811 (1985).
58. C. M. Soukoulis, M. H. Cohen, E. N. Economou and A. D. Zdetsis, "Electronic Structure at Band Edges," *J. of Non-Cryst. Solids* **77/78**, 47 (1985).
59. E. N. Economou, M. H. Cohen and C. M. Soukoulis, "DC Transport in Amorphous Semiconductors," *J. of Non-Cryst. Solids* **77/78**, 151 (1985).
60. M. H. Cohen, C. M. Soukoulis and E. N. Economou, "Optical Absorption in Amorphous Semiconductors," *J. of Non-Cryst. Solids* **77/78**, 171 (1985).
61. A. D. Zdetsis, C. M. Soukoulis and E. N. Economou, "Fractal Character of Wave Functions in One-Dimensional Incommensurate Systems," *Phys. Rev. B* **33**, 4936 (1986).
62. C. M. Soukoulis, "Electron Density of States in Random Systems," in *Hydrogen in Disordered and Amorphous Systems*, ed. by G. Bambakidis and R. C. Bowman (Plenum Publ., 1986), p. 21.
63. G. S. Grest, C. M. Soukoulis and K. Levin, "Anisotropy in Random Field Systems: The Phase Diagram," *J. of Magn. and Magn. Materials* **54-57**, 51 (1986).

64. G. S. Grest, C. M. Soukoulis and K. Levin, "Cooling Rate Dependence for the Spin Glass Ground State Energy: Implications for Optimization by Simulated Annealing," *Phys. Rev. Lett.* **56**, 1148 (1986).
65. G. S. Grest, C. M. Soukoulis and K. Levin, "Comparative Monte Carlo and Mean Field Studies of Random Field Ising Systems," *Phys. Rev. B* **33**, 7659 (1986).
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Seminars at Institutions:

"Cluster Mean Field Theory of Spin Glasses: Static and Dynamic Properties"

Northwestern University, March 1978

Brookhaven National Laboratory, April 1978

University of Virginia, April 1978

Les Houches Summer School, July 1978

Naval Research Laboratory, September 1978

Purdue University, June 1979

"Disorder and Superconductivity"

University of Virginia, May 1979

"Superconductivity and Magnetic Order in Ferromagnets and Spin Glasses"

University of Virginia, November 1979

"Localization in Low Dimensions"

University of Virginia, May 1980, September 1980

Michigan State University, May 1980

University of Chicago, May 1980

Northeastern University, June 1980

Exxon Research Laboratories, September 1980

"Computer Simulations of Atomic Distributions in Zeolite Crystals"

Exxon Research Laboratories, September 1982

"Reversible and Irreversible Behavior of Spin Glasses"

Northeastern University, November 1982

Naval Research Laboratory, December 1982

Case Western Reserve University, January 1983

University of Michigan, January 1983

Purdue University, February 1983

Washington University, St. Louis, Missouri, February 1983

Iowa State University, February 1983

Princeton University, May 1983

University of Crete, June 1983

Kansas State University, April 1984

"Characterization of Wave Functions in Disordered Systems"

Iowa State University, January 1984

Kansas State University, April 1984

State University of New York at Binghamton, April 1984

"Transport Properties of Amorphous Semiconductors"

Amoco Research Center, Naperville, Illinois, May 1984

University of Crete, January 1985

"Order and Disorder in Random Spin Systems"

University of Crete, March 1985, March 1987

Iowa State University, March 1986

Nuclear Research Center, Democritos, Athens, Greece, April 1987

University of Ioannina, Greece, May 1987

Catholic University of Leuven, Belgium, December 1989

"Exponential Band Tails in Disordered Systems"
Exxon Research Laboratories, September 1987
Iowa State University, October 1987

"A Theoretical Investigation on Structural, Vibrational, and Electronic Properties of Amorphous Silicon"
University of Crete, Greece, November 1988

"The Physics of Disordered Systems: Are They Fractals?"
Iowa State University, October 1989
Universite de Montreal, Canada, April 1990
Nuclear Research Center, Democritos, Athens, Greece, January 1991
University of Athens, Greece, March 1991
University of Mainz, Germany, June 1991
Ecole Polytechnique Federale de Lausanne, Switzerland, June 1991

"Localization of Classical Waves and Photonic Band Gaps"
University of Amsterdam, Netherlands, December 1989
Ecole Polytechnique, Montreal, Canada, April 1990
University of Karlsruhe, Germany, June 1991
Université de Fribourg, Switzerland, June 1991
Niigata University, Japan, July 1991
Kansas State University, October 1991
University of Delaware, November 1991
Nuclear Research Center, Democritos, Athens, Greece, January 1992
University of North Texas, March 1992
Ecole Polytechnique Federale de Lausanne, Switzerland, June 1992
University of Pavia, Italy, July 1992
Iowa State University, October 1992
University of Crete, Greece, February 1993
Stanford University, March 1995
University of Illinois at Urbana, April 1995
University of Amsterdam, Netherlands, March 1999

"Electron-Phonon Interaction, Localization and Polaron Formation in 1-D Systems"
University of North Texas, March 1992
University of Karlsruhe, Germany, June 1992

"Localization Studies in Highly Anisotropic Systems"
University of Minnesota, November 1994
Iowa State University, September 1995
Nuclear Research Center, Democritos, Athens, Greece, January 1996
Technical University of Denmark, Lyngby, May 1996
University of Karlsruhe, Germany, July 1996
Iowa State University, September 1996
Iowa State University (Chemistry), September 1997
Nuclear Research Center, Democritos (Chemistry), Athens, GR, January 1998
University of Crete, Greece, December 1998
University of Amsterdam, Netherlands, April 1999
University of Karlsruhe, Germany, July 1999

"Photonic Band Gaps Materials: The Semiconductors of the Future?"

University of Toledo, April 1993
University of Minnesota, May 1993
University of Chicago, May 1993
NEC Research Institute, Princeton, NJ , January 1994
Nuclear Research Center, Democritos, Athens, Greece, January 1994
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University of Delaware, April 1994
Naval Research Laboratory, May 1994
University of Illinois at Urbana, April 1995
Vanderbilt University, April 1996
Technical University of Denmark, Lyngby, May 1996
Ecole Polytechnique Federale de Lausanne, Switzerland, July 1996
National Technical University of Athens, Greece, January 1997
University of Crete, Greece, October 1998
Australian National University, Canberra, Australia, January 1999
Nuclear Research Center, Democritos, Athens, Greece, February 1999
University of Amsterdam, Netherlands, March 1999
Laboratory Leon Brillouin, CEA Saclay, France, May 2000
Institute di Spettroscopia Molecolare, Bologna, Italy, September 2000
Department of Physics, University of Crete, Greece, September 2001
Department of Physics, California State University at Northridge, October 2001
Department of Materials Science & Engineering, Cornell Univ., Ithaka, NY October 2001

"Random Lasers"

University of Amsterdam, Netherlands, April 1999
Northwestern University, May 2000
Nuclear Research Center, Democritos, Athens, Greece, January 2001